

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6893-1 (1988): Proforma for purchase specification for machine tools, Part 1: General purpose parallel lathes and precision lathes [PGD 3: Machine Tools]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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*Indian Standard***PROFORMA FOR PURCHASE SPECIFICATION FOR  
MACHINE TOOLS****PART 1 GENERAL PURPOSE PARALLEL LATHES  
AND PRECISION LATHES***( First Revision )*

**1. Scope** — Recommends the proforma for preparation of purchase specification for general purpose parallel lathes and precision lathes. It also gives essential information about these lathes at their accessories which will enable the user to assess the usefulness and suitability for requirements.

**2. Proforma**

Specification	Reference to Indian Standard	Unit	Actual Value
(1)	(2)	(3)	(4)
<b>2.1 Capacity</b>			
<b>2.1.1 Maximum swing:</b>			
a) Over bed		mm	
b) In gap		mm	
c) Over cross-slide		mm	
<b>2.1.2 Distance between centres</b>		mm	
<b>2.1.3 Bed width</b>		mm	
<b>2.1.4 Width of gap in front of face plate</b>		mm	
<b>2.1.5 Maximum facing diameter</b>		mm	
<b>2.1.6 Maximum weight of work piece that can be held in between chuck and supported by centre in tail stock:</b>		kg	
a) Dead centre			
b) Live centre			
<b>2.1.7 Maximum torque on spindle</b>		Nm	

*( Continued )*

Adopted 9 February 1988

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**IS : 6893 ( Part 1 ) - 1988**

Specification	Reference to Indian Standard	Unit	Actual Value
(1)	(2)	(3)	(4)
<b>2.2 Main Spindle</b>  <b>2.2.1</b> Type and size of: a) Spindle nose b) Taper bore in i) Spindle ii) Spindle sleeve c) Bore in spindle	IS : 2582-1972 IS : 1715-1986	mm	
<b>2.3 Tailstock</b>  <b>2.3.1</b> Type and size of internal taper in tailstock sleeve  <b>2.3.2</b> Sleeve travel: Manual/power operated ( whichever applicable )  <b>2.3.3</b> Sleeve diameter  <b>2.3.4</b> Maximum offset of tailstock on either side of centre line	IS : 1715-1986	mm  mm mm	
<b>2.4 Tool or Top Slide</b>  <b>2.4.1</b> Type of tool holder  <b>2.4.2</b> Tool or top slide travel  <b>2.4.3</b> Maximum shank section of tool	IS : 1983-1958	mm mm × mm	
<b>2.5 Main Spindle Speeds</b>  <b>2.5.1</b> No. of speeds and range forward direction <b>2.5.2</b> No. of speeds and range reverse direction		rev/min rev/min	
<b>2.6 Saddle Feeds</b>  <b>2.6.1</b> No. of feeds and feed range: a) Longitudinal b) Transverse		mm/min mm/min	

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Specification	Reference to Indian Standard	Unit	Actual Value
(1)	(2)	(3)	(4)
<b>2.14 Colour(s)</b>	IS : 5-1978		
<b>2.15 Weight of Machine with Electricals and Standard Accessories</b>		kg	
<b>2.16 Floor Space Required</b> ( length $\times$ width )		mm $\times$ mm	
<b>2.17 Standard Accessories</b>  ( Details of accessories — IS No. to be specified wherever applicable like centre, spanners, etc )			
<b>2.18 Special Accessories</b>  ( Details of accessories — IS No. to be specified wherever applicable like chuck, live centre, coolant pump, etc )			

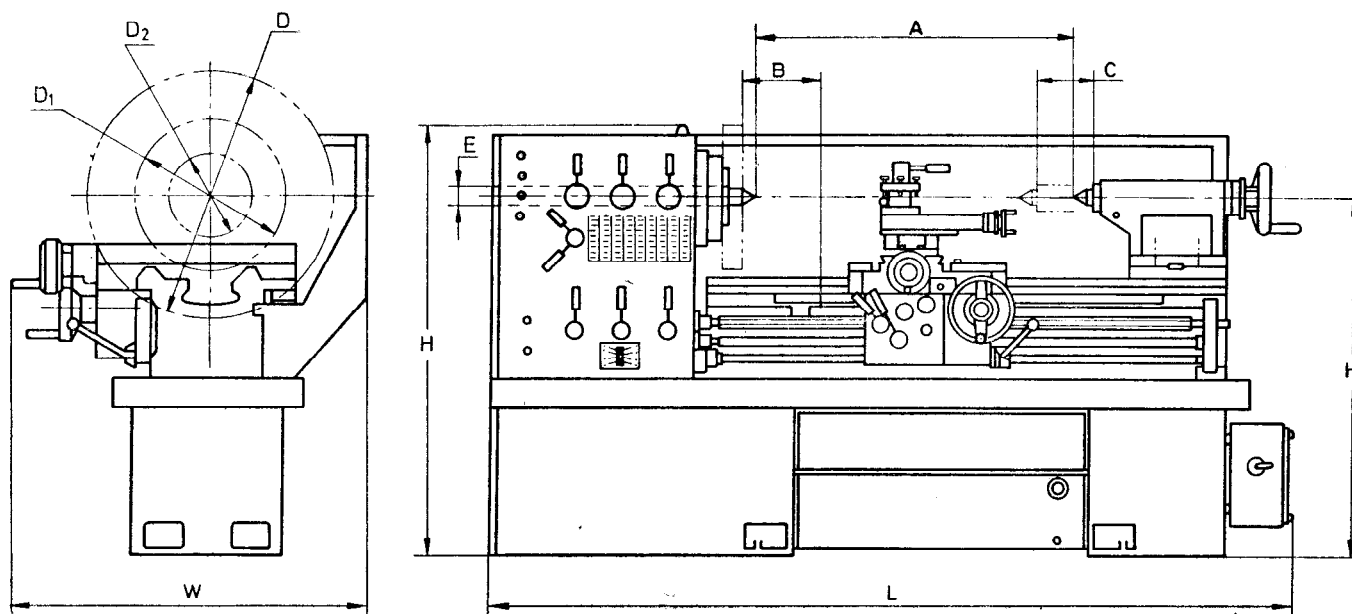
**Note** — While submitting quotations, the following information shall be furnished by the manufacturers/suppliers, together with technical literature and capacity chart of the machine ( see Appendix A for representative capacity chart for lathes ):

- a) Hardness of guideways, and
- b) Any other special features.



## APPENDIX A

## REPRESENTATIVE CAPACITY CHART FOR GENERAL PURPOSE PARALLEL LATHES AND PRECISION LATHES



- $A$  = Admit between centres
- $B$  = Length of gap in front of face plate
- $C$  = Tail stock sleeve travel
- $D$  = Maximum swing in gap
- $D_1$  = Maximum swing over bed
- $D_2$  = Maximum swing over cross-slide
- $E$  = Diameter of hole through spindle
- $L$  = Overall length of machine
- $W$  = Overall width of machine
- $H$  = Overall height of machine
- $H_1$  = Maximum working height

## EXPLANATORY NOTE

The proforma for preparation of purchase specification for machine tools has been prepared to enable a respective buyer to collect data from various manufacturers/suppliers for purposes of comparison. This is meant to be sent out with an enquiry by the purchaser so that the manufacturers/suppliers can fill in the data and send it back to the purchaser to make the comparison easier for the purchaser.

Reference is made to the following Indian Standards in this standard:

IS : 5-1978	Colours for ready mixed paints and enamels ( <i>third revision</i> )
IS : 1231-1974	Dimensions of three phase foot mounted induction motors ( <i>third revision</i> )
IS : 1715-1986	Dimensions for self holding tapers ( <i>second revision</i> )
IS : 1878 ( Part 1 )- 1971	Test chart for general purpose parallel lathes: Part 1 Lathes with swing over bed up to 800 mm ( <i>first revision</i> )
IS : 1878 ( Part 2 )- 1971	Test chart for general purpose parallel lathes: Part 2 Lathes with swing over bed over 800 mm and up to 1 600 mm ( <i>first revision</i> )
IS : 1983-1985	Shank sections for single point turning and planing tools ( <i>first revision</i> )
IS : 2582 ( Part 1 )- 1972	Spindle noses — type ' A ' ( <i>first revision</i> )
IS : 2582 ( Part 2 )- 1972	Spindle noses — camlock type ( <i>first revision</i> )
IS : 2582 ( Part 3 )- 1972	Spindle noses bayonet type ( <i>first revision</i> )
IS : 4218 ( Parts 1 to 6 )	ISO metric screw threads
IS : 4691-1985	Degrees of protection provided by enclosures for rotating electrical machinery ( <i>first revision</i> )
IS : 4729-1968	Measurement and evaluation of vibration of rotating electrical machines
IS : 6040-1971	Test chart for precision lathes — Lathes with swing over bed up to 500 mm and distance between centre up to 1 500 mm
IS : 9474-1980	Principle of mechanical guarding of machinery
IS : 10988-1984	Method of measuring noise from machine tools ( excluding testing in anechoic chambers )

In the present revision, detailed requirements of motors and coolant pumps and requirements for environmental and safety aspects have also been included in the proforma.